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THE INFLUENZA EPIDEMIC AMONG THE EMPLOYES OF THE CONSOLIDATED ARIZONA SMELTING COMPANY, ASSOCIATED COMPANIES AND THEIR FAMILIES

BY

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(Read before the Twenty-eighth Annual Session of the Arizona State Medical Association, Globe, Ariz., June 1 and 2, 1919.)

Fortunately the influenza epidemic of the early fall and winter of 1918 and 1919, did not take us entirely by surprise, and, consequently, we were able to plan a campaign against it before the actual onset.

In meeting the emergency we depended upon three procedures: First, the early recognition of the cases, because we believed that the disease was more easily communicated during the first twenty-four hours; second, and as a corollary of the first, the isolation either in the hospital or at home of the suspected or recognized cases; third, after isolation, our effort was directed to treatment, in the belief that we were materially helping to shorten the epidemic by saving as many cases as possible of those already ill of the disease. We depended for this belief upon a well-founded bacteriological hypothesis, in assuming that the primary invasion of the respiratory tract by the specific organism of influenza lowered the resistance and allowed the invasion of a secondary organism which was fatal. Whether this secondary organism was fatal per se or whether the symbiosis of the several organisms produced the lethal result is a matter of more or less academic interest. We are inclined, however, to the belief that the latter hypothesis is more nearly correct. The few reports of the epidemic then available all pointed out that the disease began in a very mild form, gradually reaching an apex, and then declined in virulence to become more or less sporadically chronic. While this is usually true of every epidemic, we were of the opinion that the attenuation of the organism at the height of the mortality curve should hasten the decline to the chronic form. Man being the susceptible animal in this instance could best serve the next individual who was infected with his organism by attenuating those organisms in recovering from the disease.

The work of recognizing the cases early was materially aided by the civil authorities, who were kind enough to send a deputy sheriff with

one of the out staff to investigate and force into the hospital any man who was reported absent from work. This procedure was particularly helpful among the Mexican and Austrian population. We went even further in that we investigated in this manner any case of sickness which was reported to us by the laity. There were, however, a few who escaped early recognition and from these our principal mortality came.

In the one camp outside of Humboldt which showed the highest morbidity, a detention hospital was established and the man in charge of the mine was given a thermometer with directions to put into this hospital any man who showed any elevation of temperature. Temperatures were recorded here and cases of evident severity were moved to Humboldt.

The staff was so divided that each individual had a particular branch of work to attend to. One had charge of the out-patient department and X-ray in the hospital, another the direct treatment of the cases in the hospital, a third of the laboratory and a fourth the general supervision of the whole and particular supervision of treatment in the hospital. This division of labor served very well to care for all cases, but would have been useless had we not had the loyal and untiring support of the regular nursing staff, together with volunteers from among the people.

It was the aim of the man in charge of the out-patient department to send to the hospital all cases which had a serious prognosis, for we believed that only in the hospital could the best nursing care and treatment be given. In a paper of this length it is out of place to go into details of prognosis in the early stages, but that the plan was successful is proven by the fact that there was no death outside the hospital. Those cases who remained home were nursed in every instance where it could be arranged by an individual who had had the disease. In families where this was not possible the first one to recover relieved the nursing situation. We are inclined to believe that in the hospital we protected ourselves against infection, by vaccine, by not allowing the patient to cough or breathe directly in our faces, by forcibly covering the noses and mouths of these patients who required restraint while examining them, and by the most scrupulous antiseptic cleanliness in handling cases. Those who wished to wear masks were supplied with them. No single factor alone served to prevent infection. Some who were vaccinated contracted the disease; all of the pupil nurses who were too new to know how to be clean took the disease. The laboratory technician, who was not a nurse, and who was not surgically clean about her person, although she did not come into direct contact with the patients, was ill of influenza; one member of the staff who came into the most direct contact with the patients in the hospital, allowed his resistance to become lowered and took influenza; two of us and one of the nurses were particularly careful to observe all prophylactic measures and remained immune. The only member of the staff who did not have influenza was a

nurse who took only one dose of vaccine; this dose produced so severe a reaction in her that no other was given.

Vaccine did not protect everyone, but only one case who was vaccinated died of the disease. On the other hand, the members of the staff took larger and more frequent doses of vaccine than were given the patients.

The Humboldt club building was used as an evacuation hospital. When the temperature had been normal or subnormal for several days and the condition of the heart muscle was such that it was thought safe to allow the patient to be moved, he was taken to the evacuation hospital, where he remained until his lung signs had cleared up and his pulse rate was nearly normal after slight exercise. Before moving to the evacuation hospital, radiographs were made of the chest in every case where physical signs were not entirely negative and in those cases where the heart showed signs of weakness a six foot cardiograph was made. After being discharged the men were forced, when unwilling to do so, to report at the hospital to have their temperatures taken on three consecutive days. There was no case who had any elevation of temperature, but if they had shown any they would have been readmitted to the hospital.

Quarantine of the company camps where influenza existed was carried out, but did not prove as adequate as quarantine of those camps in which there was no influenza. In one camp six cases developed at the very beginning of the epidemic. These cases were moved to the hospital en masse and their contacts were watched and moved to the hospital as they developed the disease. Either these cases were the result of a mild epidemic which had not been recognized up to this time, or what is more probable, they had come to camp after becoming infected at the height of an epidemic elsewhere. Two men died, but the epidemic did not spread at the mine, both of which facts support the latter hypothesis. After the camp was free from the disease no one was allowed to come in who did not have a certificate of admission from the hospital. In this way we kept them free from the disease.

In another camp the influenza never developed because it was guarded in the same way. In both instances no one was allowed to leave camp and return without a certificate from the hospital. At a third camp where these regulations were carried out the disease did not develop, but did make its appearance when precautions were relaxed and an infected individual was allowed to get in. No certificate was given at the hospital to any man who had a doubtful history of contact, temperature or cough. In some instances men were asked to return on two or more days for temperature taking if they had been in a locality known to be infected or had suspicious signs or symptoms.

As has been pointed out above, it was our intention to admit to the hospital in Humboldt only the more severe cases. There were 268 admissions, of which roughly 250 were the severe type. Of this number

there were 32 deaths, giving a mortality of nearly 12%. We cared for over 550 cases during the epidemic, although we have record of only about this many. Mortality on this bahis is therefore slightly over 5.8%. Of the 32 fatal cases, four were literally brought in to die. The longest fatal case was ill 49 days with remittent temperature around 103 degrees, and died apparently from toxemia, being infected by symbiosis of the pneumococcus, a micrococcus and a streptococcus. He had repeatedly negative blood cultures. Three of the fatal cases were complicated by a combined aortic and mitral lesion of luetic origin, and had been ill on the outside for from two days to a week. One of the fatal cases, apparently on the road to recovery after a severe streptococcus infection, died on the fourteenth day of what was clinically a ball thrombus of the right auricular appendage. The remainder of the fatal cases were ill from two to sixteen days and were of the fulminating type with edema of the lung, which we have chosen to call pulmonary sepsis. From a study of x-ray plates made at all stages we were led to believe that the disease was almost entirely, or, at least, predominatingly, an inflammation of the respiratory tract with all degrees of intensity. The mildest form consisted of bronchitis, laryngitis and pharyngitis. The soft palate and fauces were often bright red, studded with small white papillae. There was frequently a sharp line of demarcation between the soft and hard palate. X-ray of these cases revealed enlarged bronchial root glands with peribronchial root thickening. This was the type of case which lasted three to seven days, or merged into another type in which the mediastinum was involved to such an extent that the first cases seen were called mediastinitis. These cases, in from two to five days, developed signs of pneumonitis. Cases which did not die showed a gradual increase of peribronchial thickening around the hilus extending toward the periphery. Patches of early consolidation were now made out usually midway between the hilus and pleural surface; these patches, by extension and coalesence, often formed dense areas of consolidation involving in some cases almost three-fourths of the lung tissue. The apices were generally least involved and the bases most. Left and right bases were about equally involved. Many of the worst cases showed a confusing amount of edema, a water-soaked appearance of the entire lung, inconceivable with the thought of life and proper oxygenation. Necropsy showed areas of consolidation, some dry and some moist, varying in size, scattered throughout both lungs. The lungs were pus soaked. Subpleural hemorrhages occurred over some areas of consolidation. The lungs on being squeezed or scraped with a knife exuded pus; some bronchi were filled with it and others contained syrupy, prune-colored exudate. Bloody fluid in small amounts was recovered from the pleural cavities. Based on clinical and x-ray evidence we would say that the pleural surfaces were the last to be involved, some never going beyond the fibrinous form of pleurisy to end in recovery.

From the above we were led to the conclusion that the infection

began in the upper air passages, entered the lungs at the hilus and spread by peribronchial continuity, and along the blood vessels to the periphery. Cases in which sufficient immunity was produced to abort the disease and prevent the appearance of clinical signs showed areas of consolidation during convalescence.

Whether the influenza bacillus was the original cause of the disease or not, we were forced to conclude that the outcome was dependent upon the bacteria which produced the secondary invasion. From an analysis of the sputa of one hundred and twelve cases, chosen because they were beyond the fifth day, we came to the conclusion that the secondary invasion by a streptococcus-pneumococcus symbiosis was the most fatal. Of these 112 cases there were 14 who were secondarily infected by this combination, and of this number 8, or over 50%, died. In our experience the most frequent complicating organism was a short chained streptococcus. There were 42 whose sputum showed, on culture and by smear, the presence of this short chained streptococcus in practically pure culture. Of this number three died, indicating the streptococcus, contrary to expectation, to be comparatively benign. The next most frequent cause of trouble, but not of death, was a micrococcus which occurred in 15 of our series. The streptococcus-pneumococcus symbosis was next in frequency, having 14 with the result as above stated; following close upon this number was the combination of streptococcus with the staphylococcus, of which there were 10 cases, one of whom died. The pneumococcus, in company with both the streptococcus and micrococcus, produced 5 cases, as did the influenza bacillus in pure culture, with no deaths in either instance.

In forty-five cases the pneumococcus was typed, with the following results. Of four cases of type I pneumonia, all of whom were treated by the intravenous introduction of anti-pneumococcus serum type I, none died. Of the two from whose blood stream the pneumococcus type IV was recovered, one died. The remaining thirty-nine who were typed were not of type I and consequently fell into one of the three remaining classes, although their blood cultures were negative. Of these eleven died.

Because of the press of work and the fact that the laboratory technician had herself been ill of influenza, repeated attempts were not made to type any but the most severe cases. Some died before the sputum could be secured. Many of the more severe cases were typed repeatedly, however. Many of the cases above cited showed the presence of the streptococcus in their sputum also, and continued to do so after the pneumococcus had presumably been eradicated by treatment.

We found that hemorrhage from the nose upon the first day of the disease had very little bearing upon prognosis, but that profuse bleeding from the nose, stomach or intestinal tract later than the fifth day meant that the patient would be very ill, but that he would probably not die. Unfortunately the exact number of cases so doing was not kept, but it comprised over twenty, of whom only two died. Hemorrhage

at this time usually meant secondary infection by the streptcoccus and long continued case.

In our cases the pulse-temperature ratio was of great help in prognosis after the first four days. For if, after this time, the pulse ran pari passu with the temperature the case usually recovered. If, on the other hand, the pulse rate fell when the temperature rose, the outcome was much in doubt until the rise and fall became synchronous, as it did in the fatal cases, forming the "cross of death" (a fall in temperature with a rise in pulse). The extremely sick patients seemed to be possessed by the idea that they must get out of bed and if this could not be prevented they died.

Cyanosis was not, in our experience, a sure sign of death, for there were a number of such cases who recovered. Respiration for any length of time above fifty was usually fatal; some, however, who recovered breathed faster than this for a short time. A fall of systolic blood pressure in M M of Hg below the pulse rate per minute was usually fatal, as was, indeed, a marked diminution of he blood pressure regardless of the pulse.

THE SMITH-INDIAN CATARACT OPERATION.

BY

DR. E. N. BYWATER

Tucson, Ariz.

(Read at the Twenty-eighth Annual Session of the Arizona State Medical Association, Globe, Ariz., June 2 and 3, 1919.)

In presenting this subject to you I appreciate the fact that I bring you nothing new, but will simply refresh your memory to the needs of some of your patients who have cataracts developing and who are patiently waiting for the time when they will have become almost if not totally blind, or until the cataract has "ripened" so that the lens may be removed.

Not until one has had the personal experience of failing vision, with confinement for days to a dark room with both eyes bandaged, can he appreciate the frame of mind through which the man or woman suffering from cataracts must go, waiting for the time when the eye surgeon will pronounce the cataract sufficiently "ripened" to warrant an attempt at extraction of the lens, and the patient again be brought to light. The long, impatient hours, followed by wearisome days and weeks of waiting, can only be recompensed by the shining ray of hope that perhaps some day the surgeon's knife may lift the curtain and again let God's glorious light touch the delicate retina and restore wonderful pictures of grace and beauty, again stirring the soul of one who, for months or years, has been denied a place in the world's work and the Master's business, because of this handicap.

Today we are indebted to Colonel Henry Smith of India, who has

performed more cataract operations than any other one man in the world, for the Smith-Indian cataract operation, which makes it unnecessary for a patient to wait long weary months or years for the time to come when surgical interference may be applied according to the old regime. Colonel Smith devised a safe and sane procedure whereby the patient can be relieved at any time that his vision has become a handicap to him in his usual avocation, and the results of this compare favorably with the old methods of lens extraction. In many cases it gives better results, because, with the removal of the lens within its capsule skillfully done, you have not only removed the lens, but also the posterior capsule which, in many cases of extraction by the old method, has to be followed weeks later by a needling of the posterior capsule, in order to get the same good results accomplished in the removing of the lens within its capsule. By this simple method of extraction the patient is returned to a useful place in society months and years earlier than by the old method.

The technique of the Smith-Indian operation as done by Colonel Smith has been added to by Dr. W. A. Fisher of the Chicago Eye, Ear, Nose and Throat College, and in the last few cases operated I think that I have improved upon their method in the manner of doing the iridectomy.

The patient is prepared in the usual way for a cataract operation, the toilet of the eye being done by an able assistant, who at five-minute intervals instills one drop of a 5 per cent solution of cocaine into the eye until three drops have been used, one drop of adrenalin having been added just prior to the last drop of cocaine. The eye is then irrigated with a 1/5000 solution of bichloride of mercury, all of the remaining solution being removed from the eye by a medicine dropper just prior to making the incision. Now the lid hooks devised by Smith and improved by Fisher are brought into play by a trained assistant, the eye lids being held open and away from the eye ball. And this, by the way, is a very important step in the success of the operation, for if the lid pressure is kept from the eye the danger of losing vitreous while doing the operation is eliminated almost entirely, for by these lid hooks the assistant is able to control the spasm of the palpebrarum orbicularis which many times comes on during an operation and which may be the cause of many accidents in any cataract operation.

I usually employ the Smith-Wilson knife in making the corneal incision and if the position of the lens will warrant, I introduce the point of my knife just back of the corneo-scleral margin as close to the iris as possible, carry across to the opposite side with the back of my knife in the center of the pupil and emerge the point as nearly in the same position on the opposite side as the knife entered. At this point (and this is my improvement upon the technique) if, for any reason, the aqueous does not escape from the anterior chamber of the eye, I turn the edge of the knife slightly toward the iris, which causes the aqueous to escape and

the iris to float up in front of the edge of the knife. I then correct the position of the knife and proceed with the corneal incision, at the same time, in the majority of cases, doing the iridectomy with the same stroke of the knife. In times past this was considered a serious offense, but is now practiced by some of the leading eye surgeons in doing the cataract operation by the old method. And in the last three cases in which I have used this method I have been more than pleased with the results. When the knife has completed the corneal incision, the iridectomy has been done and necessity for introducing other instruments into the eye for the purpose of doing an iridectomy has been obviated. If the iridectomy is not done at this time, simultaneously with the corneal incision, I then straddle the corneal incision with an iridectomy forcep or iris forcep, holding the scleral forcep blade still just at the edge of the wound and making slight pressure on the corneal flap and drawing it toward the scleral blade, when, if all goes well, the iris will pop up out of the wound and be caught between the two blades, when it is raised away from the eye and an assistant cuts the iris, being careful to open the scissor blades again before removing the scissor from the eye, that the iris may not become caught in the scissor and thus be torn partially or completely from the eye.

When the iridectomy is complete I take a muscle hook and make pressure on the cornea over the lower segment of the lens, thus forcing the top of the lens forward, which breaks the suspensory ligaments and causes the top of the lens to protrude through the corneal incision. Sometimes, to our surprise, the lens does the opposite, and the lower segment of the lens pops up from the bottom and protrudes through the incision first. This is called a tumbler and the results are just as good as though it came top first. A Smith spoon, to which a needle has been added to the other end of the handle, is held on the scleral margin of the wound, making slight pressure to assist in breaking the ligaments and also to cause the top of the lens to move forward. When the lens appears it slides out upon the spoon and is lifted from the eye. If, for any reason, the lens hangs in the incision because of the incision not being large enough or because the ligaments do not release the lens, then the needle is brought into play and is inserted into the lens and the lens is lifted from the eye. This, of course, ruptures the lens capsule, which either hangs to the needle and is removed from the eye, or, if it breaks loose from the needle, it may fall back into the eye and drop into the lower segment of the eye and in time be absorbed, thus obviating the necessity of doing a needling operation at some subsequent time. Of course the use of the needle is, after a fashion, converting the Smith-Indian operation into the old method by opening the capsule of the lens.

When the lens has been removed the iris repositor is used to release the iris, which may have become caught up in the corners of the incision and then the edges of the wound are brought into apposition

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and with cotton sponges particles of blood and the aqueous solution are removed from the eye and a drop of atropine is instilled and the usual dressings applied. Unless there is pain or something to warrant doing otherwise I do not disturb the dressings for from three to five days. By that time healing by first intention has taken place and there is less danger of losing vitreous should the lids go into spasm and squeeze the eye.

The advantages of the Smith-Indian operation are:

First and foremost—The fact that the operation can be done as soon as the cataract has developed to a degree that the patient is hindered in his work.

Second—If the iridectomy is done with the same stroke as the corneal incision, the danger of infection is lessened by the fact that only one instrument has entered the eye ball, where, if done by the old method, at least two other instruments must come in contact with the iris and thus increase the dangers of infections.

Third—If the lens is expelled within its capsule, the necessity of using an instrument in the eye to do a capsulotomy has also been obviated, thus again reducing the danger of infection. Also if the lens is expelled within its capsule, you have also obviated the necessity of a secondary operation later for the purpose of needling the posterior capsule and have, again, avoided the danger of an infection.

The after results of the Smith-Indian operation are just as good, if not better, than under the old method, and much time and worry on the part of the patient has been eliminated and your patient goes to the operating table in a much better frame of mind and the dangers of mental depression or derangement are reduced to the minimum in the period of time following the operation, when the patient must lie in bed with both eyes bandaged.

After having employed both methods of extraction of lens, I always use the Smith-Indian operation unless there is some good reason why I cannot, and thus far I have not had occasion to resort to the old method. But should I have such occasion, I have an open mind to resort thereto.

In conclusion, let me say that I believe the justification of this method is sufficiently warranted by the relief of the mental agony through which the patient must go in becoming blind, without taking into consideration the lessened danger of infection through the use of more instruments in doing the old operation.

DISCUSSION OF DR. BYWATER'S PAPER

BY

DR. D. F. HARBRIDGE

To advise the Smith intracapsular cataract operation in all patients with cataract seems to me ill advised and particularly unwise to those

of more or less limited experience in this line of work. This operation, like many other surgical procedures, should be used as one of election. In referring to Colonel Smith's very remarkable success with this operation one should consider his experience with upwards of 50,000 operations. An experience of this magnitude should develop great skill in the application of any technique one might adopt. There are many modifications in the details of the original operation, perhaps as numerous as the contributors on this subject—Fisher, Knapp, Vail, Homer Smith, Green and many others might be mentioned.

To quote Major Smith's own statement, "when the lens becomes so opaque that vision is no longer useful for ordinary practical purposes it should be extracted in its capsule." There are certain types in which, it seems to me, that this operation is well adapted, namely, uncomplicated, immature and hypermature, cataracts and in certain lens dislocations, whether cataractous or clear, which may require removal. In small children it is practically impossible to extract the lens in capsule. The older a patient the weaker the suspensory ligament and the easier to remove. Hypermature cataracts are perhaps rather more difficult of extraction owing to the thickening of the suspensory ligament.

Regarding the method of doing an iridectomy, as suggested by the author, at the time of making the corneal section, is one which has been done by other operators either accidentally or by design. Personally I look upon it as a doubtful procedure as a routine measure. Smith usually does the operation without a preliminary iridectomy although either method may be followed. Vail contends that iridectomy is useless. The moderate loss of vitreous does not seriously affect vision and is therefore not looked upon as such a catastrophe as formerly.

However, the operation marks a very wonderful advance in ophthalmic surgery and is of especial value when applied in properly selected cases. A patient in the prime and vigor of life no longer requires long years of waiting for maturing of the lens, yet it is an operation requiring a word of caution that it be not undertaken lightly by one whose experience is limited. The author is to be complimented in bringing this very important subject to the attention of our members.

NOTES OF INTEREST

AUSTIN, TEXAS.—The attention of the Texas State Board of Health has been called to the confusion existing in the minds of the physicians and the general public as to the nature of the product causing the unusual reactions in Dallas and a few other localities in Texas. The general impression is that diphtheria antitoxin was responsible. This is not the case. The material used is known in medical practice as diphtheria toxin-antitoxin mixture. This mixture is administered for the purpose of protecting against an attack of diphtheria, while diphtheria

antitoxin, an entirely different product, is administered to cure the patient after the disease has been contracted.

Regrettable as the occurrence has been, the results will be as nothing compared to what will obtain unless the confusion is promptly corrected. If physicians refrain from using diphtheria antitoxin and parents refuse to allow its use on the ground that it was responsible for the unusual reactions, such action will result in the sacrifice of many more lives and cause a great deal more suffering than occurred in the use of diphtheria toxin-antitoxin mixture.

On the ground of a broad general public health measure an earnest appeal is being made to make it clear that diphtheria antitoxin was not concerned and was in no way at fault. Therefore the State Board of Health urges that the use of diphtheria antitoxin be not refused in any case where it is needed.

The state board also requests that where this treatment is refused, that report of such refusal be made directo to the state health officer.

AUSTIN, TEXAS.—Recognizing the possible danger of a recurrence of the influenza epidemics of a year ago, the state health officer has issued the following statement as a warning:

"If a person has a cold, cough or sore throat, then he should stay at home, avoiding crowds at all times, and especially where there is poor ventilation. If the feet get wet, or the clothing wet or damp, dry them at the earliest possible opportunity.

"Spend as much time as possible out of doors and be sure that the bedroom is well ventilated. When compelled to cough or sneeze, cover the mouth and nose with a handkerchief, thus avoiding the spreading of germs among others.

"In brief, keep the body as healthy as possible, for a healthy body offers a high resistance to the invasion of any disease."

Dr. Goddard stated that he thought this warning was timely inasmuch as reports from foreign countries show that the disease is again epidemic in some of these countries, and all precautions should be used to prevent the return of the disease in epidemic form in this state.

Some few cases have been reported to the State Board of Health every month since the first outbreak of last year.

NEW AND NON-OFFICIAL REMEDIES.

During January the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Non-official Remedies:

Gilliland Laboratories—Pasteur Anti-Rabic Vaccine-Gilliland; Pneumococcus Vaccine Immunizing-Gilliland.

Eli Lilly and Company—Chloroxyl.

Parmele Pharmacal Company—Chinosol and Chinosol Tablets.

E. R. Squibb and Sons—Thromboplastin Hypodermic-Squibb.
Winthrop Chemical Company, Inc.—Veronal-Sodium.

ICHTHYOL—An aqueous solution, the important medicinal constituents of which are ammonium compounds containing sulphur in the form of sulphonates, sulphones and sulphides. These products result from the sulphonation of the tar-like distillate obtained from the bituminous shales found near Seefeld in the Tyrol. Ichthyol is weakly antiseptic and mildly irritant. It is used locally on the supposition that it will secure the absorption of swellings and effusions in contusions, burns, etc., and especially in gynecologic practice and in various skin diseases. Ichthyol has been tried internally in a great variety of conditions, but its therapeutic value in many of its suggested applications has not been fully established. Merck and Co., New York. (Jour. A. M. A., Jan. 3, 1920, p. 30.)

THYROXIN—4, 5, 6-trihydro-4, 5, 6-triodo-*alpha*-oxy-*beta*-indoli proprionic acid. An active principle obtained from the thyroid gland. Thyroxin is used essentially for the same purposes as Dried Thyroids, U. S. P. It is indicated in some cases of diminishing or absent thyroid functioning, such as simple goiter, cretinism or myxedema. Thyroxin is supplied *only* in the form of tablets for oral administration, containing, respectively, 0.2, 0.4, 0.8 and 2 Mg. of thyroxin. E. R. Squibb and Sons, New York (Jour. A. M. A., Jan. 10, 1920, p. 105).

PHYLACOGENS—A circular letter devoted to singing the praises of "Pneumonia Phylacogen" contains this: "Pheumonia Phylacogen has been found to be a dependable means of preventing and treating pneumonic complications of influenza. In one large city it became a routine measure to give all persons affected with influenza an injection of pneumonia phylacogen as a prophylactic of pneumonia. The results were remarkable. Not only did the cases improve rapidly but in a majority of them the pneumonia did not occur." The injection of phylacogens is simply the administration of a mixture of the filtered products of several bacterial species. The results that follow represent the reaction of the bacterial proteins—a reaction for good or evil. There is no scientific evidence to show that they possess any specific prophylactic virtue. To recommend their use in patients with influenza, as a prophylactic against pneumonia, is unwarranted, and the physician who acts on the advice of the manufacturer must assume the responsibility of the results. In case of mishap he cannot fall back on the manufacturer. He will find no scientific evidence to support him (Jour. A. M. A., Nov. 15, 1919, p. 1442).

VACCINES IN INFLUENZA—The efficacy of vaccines in preventing influenza or in preventing or decreasing the severity of secondary infections is unproved. In view of the varying preponderance of the different organisms isolated from influenza cases, it is evident that even if a certain mixture is found efficacious in one locality, it may not be ef-

fective in another. Thus far, hope and imagination have exceeded scientifically controlled facts.

ACRIFLAVINE AND PROFLAVINE—Tentative descriptions and standards for acriflavine and proflavine are published in New and Non-official Remedies for the information of manufacturers, pharmacists and physicians. In view of numerous inquiries regarding the therapeutic properties of these dyes which have been received by the Council on Pharmacy and Chemistry, the council has prepared an abstract of the available literature on the subject. From this review it is evident that the use of the dyes is in the experimental stage and that their value cannot be definitely judged. Of the 34 reports which are abstracted, 25 may be considered as favorable, 7 are distinctly unfavorable and 2 are in the doubtful class (Jour. A. M. A., Nov. 15, 1919, p. 1542).

MERCUROCHROME-220—A preliminary report of the Council on Pharmacy and Chemistry discusses the experimental status of this new germicide for use in the genito-urinary tract. While the lack of confirmatory evidence of its value does not permit more than a tentative acceptance, the available data may be sufficient to warrant its use by physicians, provided its experimental therapeutic status is recognized. Mercurochrome-220 (marketed by Hynson, Westcott and Dunning, Baltimore) is stated to be dibromo-oxymercury fluorescein. It is a red powder, insoluble in water but soluble in alkalis. According to Young, White and Shwartz, mercurochrome-220 is a strong and rapidly acting germicide which penetrates the tissues readily and is tolerated in 1 per cent solutions by the bladder, renal pelvis and urethra. Only temporary discomfort is caused when a 2.5 per cent solution is applied to the anterior urethra. Its toxicity is high, but no systemic effects have been observed following its local application (Jour. A. M. A., Jan. 3, 1920, p. 31).

CHINOSOL—*Oxyquinolin Sulphate*—Chinosol is a powerful nontoxic antiseptic, somewhat stronger than mercuric chloride and considerably stronger than phenol. It is a feeble germicide, being weaker than phenol and much weaker than mercuric chloride. Chinosol is claimed to have marked analgesic power and to be an efficient deodorant. Chinosol is also marketed in the form of chinosol tablets 0.25 Gm. Parmele Pharmacal Company, New York.

APOTHESINE—This is an efficient local anesthetic manufactured by Parke, Davis and Co. It belongs to the procain rather than to the cocain type, that is, while efficient for injection anesthesia, it is relatively inefficient when applied to mucous membranes. The Council on Pharmacy and Chemistry reports that exception was taken to certain claims of efficiency, safety, etc., and that it sent these objections to Parke, Davis and Co. The firm apparently was unwilling or unable to submit evidence for the claims that had been questioned, nor did it offer to modify the claims themselves. Apothesine is, therefore, ineligible for

inclusion in New and Non-official Remedies. It will, however, be listed in the "Described But Not Accepted" department of New and Non-official Remedies (Jour. A. M. A., Jan. 24, 1920, p. 265).

RELIEF TO DISABLED MEN THROUGH THE UNITED STATES PUBLIC HEALTH SERVICE

Under Public Act 326 the United States Public Health Service will furnish relief to any honorably discharged soldier, sailor or marine. or army or navy nurse (male or female) who was discharged on or after October 6, 1917, and becomes disabled or ill on account of illness or injury incurred previous to discharge from service, and not due to misconduct.

By applying to the commanding officer of an army hospital those who come under the act may enter the institution, or by applying to a public health service official they may enter a public health service hospital. In both cases accepted applicants will have all proper expenses paid, but unless authority is obtained from one of these officials, the government will not pay for medical treatment. Public health service hospitals are located in a number of cities throughout the country.

In a bulletin Lieutenant Colonel Mathew C. Smith, General Staff, in charge of the employment and the general welfare of ex-service men, says:

"Although the welfare bodies and others have been co-operating with the war department in an effort properly to inform all these persons who are entitled to medical or surgical treatment, many are still unaware of their rights. These men incurred their disabilities while in the service of our country, and it is the intention of the government that they shall not become wards of the public. The co-operation of all medical men is requested in this matter. Physicians and surgeons are notified that former soldiers or sailors suffering from disabilities resulting from war conditions may be directed to the local Red Cross or United States public health service representative, or to the nearest army hospital."

If discharge or other papers showing that the disability was existing at the time of separation from service are available they should be taken along, as they will be of help in making a decision on the case. However, if these papers are not available the man should not hesitate to apply. Such an applicant, if his condition demands it, will be immediately placed under treatment pending the receipt of the necessary papers.

If there is no representative of the health service in the ex-service man's home town and no army hospital at hand, and it is possible for him to travel, such traveling expenses, hospital expenses and wages lost while undergoing examination will be paid by the government, should it be decided that treatment is necessary.

On the other hand, if the physical condition of the man makes it impossible for him to travel, the public health service will arrange for his examination and treatment at his home. In special cases where it is found that a change of climate will be beneficial, patients will be sent by the public health service to specially designated hospitals.

Copies of the pamphlet explaining the law may be secured without charge by any physician on application to the office of the Assistant to the Secretary of War, Service and Information Branch, Council of National Defense Building, Washington, D. C. It has already been distributed to all army and navy hospitals, state and city health officers, and United States public health service stations.

IN MEMORIAM

On February 3. Dr. Oliver T. Hyde, for six years medical director at St. Joseph's Sanatorium at Albuquerque, died at his residence.

Dr. Hyde was born in Ellington, Conn., August 4, 1875, graduated from Amherst at the age of twenty-two. entered the college of Physicians & Surgeons, Columbia University, New York City, graduated there, was interne for two years at Bellevue Hospital, following which he pursued higher medical and surgical studies in Berlin and Vienna. On his return to America Dr. Hyde entered active practice in Des Moines, Ia., where, under great press of work his health broke down and he became affected with pulmonary tuberculosis. He came west to Silver City, where he was resident medical director of a sanatorium until October 15, 1914, when he undertook the directorship of St. Joseph's at Albuquerque.

It is with regret that we have to announce the death of this kind and skillful physician. His loss will be felt, not only in his own community but through the whole southwest as well.

* * * *

Relative to the death of Dr. Oliver T. Hyde, which occurred on February 3, 1920, the Bernalillo County Medical Society passed the following resolutions, viz:

(1) Resolved: In the death of Dr. Oliver T. Hyde our society has lost a faithful and enthusiastic member. An ex-president, who during his recent term of office inspired our members to increased efforts in behalf of scientific medicine.

(2) Resolved: That we appreciated his high scientific attainments and ideals, his intense energy that through a long period of failing health, almost invalidism, kept him an active member of our profession and of our society.

(3) Resolved: That a copy of these resolutions be spread on the minutes of our society, be printed in our daily papers and be mailed to his family.

W. G. HOPE, D. C. TWITCHELL,
P. G. CORNISH, *Committee.*

Southwestern Medicine

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All articles must be made exclusive to this journal. Reports of Society Meetings are asked for from the Secretaries.
Items of interest, with the name of the sender will be acceptable.
Books for review should be sent to The Editor.
Advertisements of proprietary medicines must have had the preparations approved by the Council of Pharmacy, A. M. A.
All business communications should be addressed to El Paso Printing Co., El Paso, Texas, Telephone 337.

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If you do not get your Journal, kick to me. If you change your address, let me know and we'll follow you.
If anything does not please you, say so! Maybe we'll change. But we would sooner be cussed than damned with faint praise.

EDITORIALS

A PATRIOTIC DUTY

In strongly urging discharged soldiers to retain and convert their war risk insurance or to reinstate it if lapsed is a great opportunity for real service as well as a solemn obligation for the officers who have been retired from the army, especially those members of the medical profession who served with the American Forces during the war. It is also well that the other doctors, who did not have the opportunity to serve, contribute their share in a matter which is really important to the welfare of the boys who risked their lives in the service of Liberty.

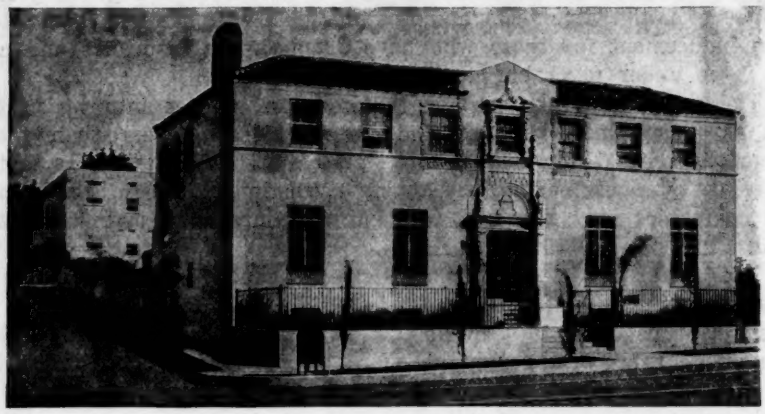
Recent amendments to the war risk insurance act now permit a wide choice of beneficiaries and also offer the option of payment to the beneficiary in a lump sum instead of the installment plan originally in force. Moreover, the provision that discharged service men are permitted to reinstate lapsed or canceled insurance within 18 months from the date of discharge upon payment of only two months' premiums on the amount of the insurance to be reinstated, provided the insured is in good

health as at the date of discharge or expiration of the grace period (whichever is the later date) and so states in his application, is an additional inducement for those who have dropped this insurance and can take it up under favorable conditions.

The government charges for the types of policies into which the term insurance may be converted are considerably less than thos charged by the old line companies. There is also no question as to the ability of the government to pay at any given time in the future. Insurance companies may rise and fall, but certainly our government will stand.

The doctor has a wide acquaintance in general in the community in which he lives and is very favorable situated for carrying on an effective propaganda to prevent our boys from being robbed, either through ignorance or through the misrepresentations of those interested in getting their money assigned to old line companies, of the benefits which a grateful country is willing to give.

Dr. Katherine L. Storm of Philadelphia is announcing the removal of her offices from 1541 to 1701 Diamond street. The new building which Dr. Storm has purchased has treble the capacity of her present building, and is being equipped with every facility for quick and exact work. Dr. Storm is justly proud of the ever-widening demand for the Storm Binder and Abdominal Supporter, and is planning to maintain her reputation for immediate response to each order.



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